What is claimed is:

1. A method of securing a machine having first and second tool parts that define an opening gap between them, at least the first tool part being movable relative to the second tool part in a movement direction during an operating cycle for deforming a workpiece between them by reducing a size of the opening gap in the movement direction, the method comprising generating the protected zone so that it precedes the first tool part and extends over at least a portion of the opening gap in the direction of relative movement, monitoring the protected zone with an optoelectronic sensor and generating a danger signal in response to a breach of the protected zone, and when a size of the opening gap in the movement direction becomes smaller than the protected zone in the movement direction, correspondingly reducing the size of the protected zone in the movement direction of the first tool part until during subsequent closing movements of the first tool part substantially the entire opening gap is within the protected zone.

2. A method according to claim 1 including, during subsequent closing movements, completely deactivating the protected zone after an extent of the protected zone in the movement direction has reached a predetermined minimum.

3. A method according to claim 1 including dividing a movement speed of the first tool part into a relatively faster, first closing speed and a subsequent, relatively slower second closing speed, and switching from the first closing speed to the second closing speed on the basis of a deceleration ramp or a remaining travel distance for the first tool part established during a preceding test run of the first tool part.

4. A method according to claim 1 including deactivating at least a portion of the protected zone as a function of the size and/or the geometrical shape of the workpiece.

5. A method according to claim 4 wherein deactivating occurs after a portion of the workpiece has entered the protected zone.

6. A method according to claim 4 including determining a position of an upper surface of the workpiece during a test run of the first tool part and then learning and memorizing the position of the upper surface as a contact point between the first tool part and the workpiece.

7. A method according to claim 1 wherein the machine comprises a bending press.

8. Apparatus for protecting a dangerous zone of a machine against unwanted entries into the zone comprising first and second tool parts mounted for relative movement of the first tool part in a closing direction towards the second tool part and defining an opening gap between the tool parts, an optoelectronic sensor for monitoring the opening gap including a light emitter for completely illuminating the dangerous zone with a light beam, a light receiver for receiving the emitted light, and a control unit for generating a danger signal when an intrusion into the protected zone is detected, the light emitter and the light receiver being configured so that when the opening gap becomes reduced as the first tool part moves in the closing direction, the protected zone is correspondingly reduced in the closing direction and so that during further movements of at least one of the first and second tool parts the entire opening gap is within the protected zone.

9. Apparatus according to claim 8 wherein the light beam has a cross-section at the light receiver which is greater than and completely illuminates the light receiver.

10. Apparatus according to claim 7 including means fixedly securing the sensor to the first tool part for movement with the first tool part during an operating cycle of the first tool part.

11. Apparatus according to claim 8 wherein the receiver comprises a location resolving receiver.

12. Apparatus according to claim 11 wherein the receiver comprises a CMOS-receiver defining a matrix.